

FORM PTO-1390  
REV. 2/01

U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE

TRANSMITTAL LETTER TO THE UNITED STATES  
DESIGNATED/ELECTED OFFICE (DO/EO/US)  
CONCERNING A FILING UNDER 35 U.S.C. 371

Attorney's Docket Number: 05788.0175

Customer No.: 22,852

U.S. APPLICATION NO.  
(If known, see 37 CFR 1.5)

09/868997

INTERNATIONAL APPLICATION NO.

PCT/EP99/10131

INTERNATIONAL FILING DATE

December 20, 1999

PRIORITY DATE CLAIMED

December 24, 1998

TITLE OF INVENTION

PROCESS FOR PRODUCING SELF-EXTINGUISHING CABLES WITH  
LOW-LEVEL PRODUCTION OF FUMES, AND FLAME-RETARDANT  
COMPOSITIONS USED THEREIN

APPLICANT(S) FOR DO/EO/US

1) Franco PERUZZOTTI, 2) Diego TIRELLI, 3) Paolo LIBOI and  
4) Enrico ALBIZZATI

Applicants herewith submit to the United States Designated/Elected Office (DO/EO/US) the following items and other information:

1. ☒ This is a **FIRST** submission of items concerning a filing under 35 U.S.C. 371.
2. ☐ This is a **SECOND** or **SUBSEQUENT** submission of items concerning a filing under 35 U.S.C. 371.
3. ☐ This is an express request to begin national examination procedures (35 U.S.C. 371(f)). The submission must include items (5), (6), (9) and (21) indicated below.
4. ☒ The US has been elected by the expiration of 19 months from the priority date (Article 31).
5. ☒ A copy of the International Application as filed (35 U.S.C. 371 (c)(2)).
  - a. ☒ is attached hereto (required only if not communicated by the International Bureau).
  - b. ☐ has been communicated by the International Bureau.
  - c. ☐ is not required, as the application was filed with the United States Receiving Office (RO/US).
6. ☐ An English language translation of the International Application as filed (35 U.S.C. 371 (c)(2)).
  - a. ☐ is attached hereto.
  - b. ☐ has been previously submitted under 35 U.S.C. 154 (d)(4).
7. ☒ Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. 371 (c)(3)).
  - a. ☐ are attached hereto (required only if not communicated by the International Bureau).
  - b. ☐ have been communicated by the International Bureau.
  - c. ☐ have not been made; however, the time limit for making such amendments has NOT expired.
  - d. ☒ have not been made and will not be made.
8. ☐ An English language translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371 (c)(3)).
9. ☐ An oath or declaration of the inventor(s) (35 U.S.C. 371 (c)(4)).
10. ☐ An English language translation of the annexes of the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. 371 (c)(5)).

Items 11 to 20 below concern document(s) or information included:

11. ☒ Information Disclosure Statement under 37 CFR 1.97 and 1.98.
12. ☐ An assignment document for recording. A separate cover sheet in compliance with 37 CFR 3.28 and 3.31 is included.
13. ☐ A **FIRST** preliminary amendment.
14. ☐ A **SECOND** or **SUBSEQUENT** preliminary amendment.
15. ☐ A Substitute specification.
16. ☐ A change of power of attorney and/or address letter.
17. ☐ A computer-readable form of the sequence listing in accordance with PCT Rule 13ter.2 and 35 U.S.C. 1.821-1.825.
18. ☐ A second copy of the published international application under 35 U.S.C. 154 (d)(4).
19. ☐ A second copy of the English language translation of the international application 35 U.S.C. 154 (d)(4).
20. ☒ Other items or information:
  - a. ☒ Copy of cover page of International Publication No. WO 00/39810 with Abstract of the Disclosure.
  - b. ☐ Copy of Notification of Missing Requirements.

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1018 Rec'd PCT/PTO 22 JUN 2001

U.S. APPLICATION NO. (If known, see PCT 1.5) <b>09/868997</b>		INTERNATIONAL APPLICATION NO.: PCT/EP99/10131		ATTORNEY'S DOCKET NUMBER 05788.0175	
21. <input checked="" type="checkbox"/> The following fees are submitted: <b>BASIC NATIONAL FEE (37 CFR 1.492 (a) (1) - (5)):</b> Neither international preliminary examination fee (37 CFR 1.482) nor international search fee (37 CFR 1.445(a)(2)) paid to USPTO and International Search Report not prepared by the EPO or JPO .....\$1000.00 International preliminary examination fee (37 CFR 1.482) not paid to USPTO but International Search Report prepared by the EPO or JPO .....\$860.00 International preliminary examination fee (37 CFR 1.482) not paid to USPTO but International Search fee (37 CFR 1.445(a)(2)) paid to USPTO .....\$710.00 International preliminary examination fee (37 CFR 1.482) paid to USPTO but all claims did not satisfy provisions of PCT Article 33(1)-(4) .....\$690.00 International preliminary examination fee (37 CFR 1.482) paid to USPTO and all claims satisfied provisions of PCT Article 33 (1)-(4) .....\$100.00  <b>ENTER APPROPRIATE BASIC FEE AMOUNT =</b>				CALCULATIONS PTO USE ONLY	
Surcharge of \$130.00 for furnishing the oath or declaration later than months from the earliest claimed priority date (37 CFR 1.492 (e)). <input type="checkbox"/> 20 <input type="checkbox"/> 30				\$	
CLAIMS		NUMBER FILED		NUMBER EXTRA	
Total Claims		33 - 20 =		13	
Independent Claims		2 - 3 =		0	
MULTIPLE DEPENDENT CLAIM(S) (if applicable)				+ \$270.00	
<b>TOTAL OF THE ABOVE CALCULATIONS =</b>				\$1364.00	
<input type="checkbox"/> Applicant claims small entity status. See 37 CFR 1.27. The fees indicated above are reduced by 1/2.				\$	
<b>SUBTOTAL =</b>				\$1364.00	
Processing fee of \$130.00 for furnishing the English translation later than months from the earliest priority date (37 CFR 1.492(f)). <input type="checkbox"/> 20 <input type="checkbox"/> 30				\$	
<b>TOTAL NATIONAL FEE =</b>				\$1364.00	
Fee for recording the enclosed assignment (37 CFR 1.21 (h)). The assignment must be accompanied by an appropriate cover sheet (37 CFR 3.28, 3.31). \$40.00 per property. +				\$	
<b>TOTAL FEES ENCLOSED =</b>				\$1364.00	
				Amount to be refunded:	\$
				charged:	\$
a. <input checked="" type="checkbox"/> A check in the amount of \$ 1364.00 to cover the above fees is enclosed. b. <input type="checkbox"/> Please charge my Deposit Account No. _____ in the amount of \$ _____ to cover the above fees. A duplicate copy of this sheet is enclosed. c. <input checked="" type="checkbox"/> The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No. 06-0916. A duplicate copy of this sheet is enclosed. d. <input type="checkbox"/> Fees are to be charged to a credit card. <b>WARNING:</b> Information on this form may become public. <b>Credit card information should not be included on this form.</b> Provide credit card information and authorization on PTO-2038.  NOTE: Where an appropriate time limit under 37 CFR 1.494 or 1.495 has not been met, a petition to revive (37 CFR 1.137 (a) or (b)) must be filed and granted to restore the application to pending status.  <b>SEND ALL CORRESPONDENCE TO:</b> Finnegan, Henderson, Farabow, Garrett & Dunner, L.L.P 1300 I Street, N.W. Washington, D.C. 20005-3315 EFC/FPD/sci DATED: June 22, 2001					
				for SIGNATURE Ernest F. Chapman/ 25.961 NAME/REGISTRATION NO.	

09/868997

"PROCESS FOR PRODUCING SELF-EXTINGUISHING CABLES WITH  
LOW-LEVEL PRODUCTION OF FUMES, AND FLAME-RETARDANT  
COMPOSITIONS USED THEREIN"

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The present invention relates to a process for producing cables, in particular electrical cables for low-voltage power transmission or for telecommunications, these cables having self-extinguishing properties and producing a low level of fumes, and to the flame-retardant compositions used therein.

Self-extinguishing cables are generally produced by extruding over the core of the cable a flame-retardant coating consisting of a polymer composition which has been given flame-resistant properties by the addition of a suitable additive. Polyolefin-based compositions based, for example, on polyethylene or ethylene/vinyl acetate copolymers, containing an organic halide combined with antimony trioxide as flame-retardant additive can, for example, be used for this purpose. However, halogenated flame-retardant additives have many drawbacks since they partially decompose during processing of the polymer, giving rise to halogenated gases that are toxic to workers and corrode the metal parts of the polymer-processing equipment. In addition, when they are placed directly in a flame, their combustion gives rise to very large amounts of fumes containing toxic gases. Similar drawbacks are encountered when polyvinyl chloride (PVC) with added antimony trioxide is used as base polymer.

Thus, in recent years, use has been made of halogen-free compounds in the production of self-extinguishing cables, in which a polymer base, generally of polyolefin type, is mixed with inorganic flame-retardant fillers, generally hydroxides, hydrated oxides or hydrated salts of metals, in particular of aluminium

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